

REMARKS

Claims 1 – 6, 7 – 13 and 15 - 29 are pending in the present application. Claims 15 – 24 and 26 - 28 are hereby cancelled. No claims are amended or added. Claims 1 – 6, 7 – 13, 25 and 29 stand rejected over Westlund. Claims 1 – 6, 7 – 13 and 25 stand rejected over Ley and Bush. Claim 29 is indicated to be allowable over Ley and Bush. Reconsideration of the Application is respectfully requested.

1. Rejection over Westlund (U.S. 6,643,550).

Claims 1-5, 8-13, 25 and 29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Westlund (U.S. 6,643,550). This rejection is respectfully traversed.

The rejected claims require “a component including a surface and a groove formed in the surface; a conductor comprising a plurality of wire strands cabled together, the conductor extending within the lead and positioned within the groove of the component; and a resistance weld formed between the conductor and the component; wherein the groove includes a depth and the conductor positioned within the groove includes a pre-weld diameter, the pre-weld diameter being greater than the depth of the groove”.

The Examiner argues that Westlund teaches such a cabled, multi-strand conductor, in the form of the conductors 195, shown in cut-away view in Figures 10 C and 10D. This observation is respectfully asserted to be clearly factually incorrect. These figures illustrate a multi-filar coil comprising individual conductors 195, not a stranded, cabled conductor as required by the claims. Further, each conductor 195 is located in a separate groove. As such, the multi-filar coil of conductors 195 cannot be reasonably argued to be a multi-strand cable, welded in a single groove.

Each of the conductors 195 is shown in cut-away view. In the cut away view, it is clear that each conductor includes a central core surrounded by an outer coating or layer of some sort. The material of the outer layer and whether it is even conductive is not disclosed. The Examiner is respectfully reminded that the same cross sectional

configuration is illustrated in the cited Ley patent cited by the Examiner, and the outer layer is expressly disclosed as being insulative.

Even if the outer layer assumed to be conductive, the cross section illustrated would show a clad or coated conductor rather than a multi-stranded, cabled conductor as required by the claims. If the Examiner has a reference which describes such a conductor as a cabled, multi-strand conductor, it should be cited. Otherwise, Westlund must be interpreted in a fashion consistent with word usage in the art and in the present application. Under either interpretation, each of the conductors 195 in Westlund is clearly a single strand coated or clad conductor, welded into a single groove.

As the Westlund patent doesn't disclose a conductor of the type required by the claims it cannot possibly address the appropriate mechanisms for welding a multi-stranded, cabled conductor into a groove. The Examiner contends that it would be obvious to make a pre-weld diameter of the conductor to be greater than the depth of the groove. However, as noted previously, when a single strand wire conductor as illustrated in Westlund is larger than the depth of a groove, the points of greatest resistance would create a weld pool on the surface the conductor that is outside the groove, likely causing the weld to fail. Possibly this is why in the illustrated embodiments of Westlund, the conductors are shown as having diameters less than or equal to the grooves in which they are located.

The Examiner's opinion that greater, equal and lesser are all "identified alternatives" is respectfully asserted to be per-se inadequate for three reasons. First, within the teaching of Westlund, the teaching is clear that the diameter of the conductor is less than or equal to the recess (groove or bore) in which it is mounted. Second, in the context of single strand conductors as in Westlund, these would not in fact be considered as equivalent alternatives for the reason discussed above. Third, even if these three alternatives are considered as obvious equivalent alternatives in the case of welding single stranded solid wire as disclosed in Westlund, the argument still does not address the questions associated with welding stranded cabled conductors. If the Examiner has some reference which discloses that all three "identified alternatives"

have in fact been identified in the context of resistance welding of stranded, cabled conductors, this reference should be cited.

The Examiner is respectfully reminded that when making "common sense" type rejections, the arguments must be both set forth with specificity and meet the standard of common sense in order to be legally adequate. These requirements have been clearly set forth in Perfect Web Technologies v. Infousa, with which the Examiner is undoubtedly familiar. In the present case, the Examiner's rejection is based upon an inaccurate factual premise and is therefore respectfully asserted to legally deficient with regard to meeting the standard of common sense. Further, as the argument does address the differences between welding cabled conductors and single stranded conductors, the argument also fails to meet the requirement of specificity.

For at least the foregoing reasons, Applicants assert that the rejection of claims 1 - 6, 8 - 13, 25 and 29 over Westlund is improper and should be withdrawn.

2. Rejection over Ley (U.S. 6, 912,423) in view of Bush (U.S. 5,385,578)

Claims 1-6, 8 - 13, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ley (U.S. 6, 912,423) in view of Bush (U.S. 5,385,578). This rejection is respectfully traversed.

In the Final Action, the Examiner does not dispute that the diameter of the conductive core of Ley is equal to the depth of the groove. The Examiner instead argues that the outer diameter of the insulation ("diameter of the filar") is still greater than the depth of the groove. This in turn is not disputed by applicants. However, the obviousness of adding a resistance weld to the connection in Ley is respectfully traversed for two reasons.

First, as known to the art and as described in the present application, resistance welding is typically accomplished by placing oppositely polarized electrodes on either side of the intended weld site, each in electrical contact with only one of the two metal components to be welded, with the intended weld occurring between the electrodes. In

Ley, after insertion of the insulated conductor into the groove, the surface of the "filar available opposite the intended weld site is covered with insulation, making a resistance weld impractical, or at the very least a bad idea. Yes, the insulation could theoretically be stripped off, but a significant benefit of the connection as disclosed in Ley is avoiding the necessity of performing this step. Adding a process (resistance welding) to the connection would unnecessarily remove this benefit of the connection mechanism of Ley and cannot be an obvious modification.

Second, the connection in Ley is an alternative to welding, avoiding the necessity of welding altogether. As such adding a resistance weld to the connection of Ley defeats its basic purpose and cannot reasonably be argued to be an obvious modification, regardless of the fact that resistance welding generally is a well known mechanism for joining two metal components as disclosed in Bush and thousands of other prior art patents.

The present invention as claimed is directed to a specific improvement to a welding process. Ley is directed to an alternative to welding altogether. It is respectfully asserted that the Examiner's proposed addition of a resistance weld to Ley is also contrary to both requirements set forth in Perfect Web Technologies v. Infousa, as discussed above.

For at least the foregoing reasons, Applicants assert that the rejection of claims 1-6, 8 - 13, and 25 based on Ley and Bush is improper and should be withdrawn.

Claim 29, as noted above is indicated to be allowable over Ley and Bush.

Applicant respectfully asserts that the present claims are in condition for allowance. Withdrawal of the instant rejections and issuance of a Notice of Allowance is respectfully requested.

Should any issues remain outstanding, the Examiner is urged to telephone the undersigned to expedite prosecution. The Commissioner is authorized to charge any deficiencies and credit any overpayments to Deposit Account No. 13-2546.

Respectfully submitted,

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Date

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